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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,501	10/11/2001	John W. Cuzzo	015511-000002	9736

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EXAMINER

SCHAETZLE, KENNEDY

ART UNIT	PAPER NUMBER
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3762

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/975,501

Applicant(s)

CUOZZO, JOHN W.

Examiner

Kennedy Schaetzle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-12, 14, 15, 18, 19 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-12, 18, 19 and 21-25 is/are allowed.
- 6) ☒ Claim(s) 14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Mersky et al. (Pat. No. 5,460,593).

Regarding claim 14, Mersky et al. disclose a method comprising removably securing (note col. 3, lines 25-29 and Figs. 4 and 5) an energy source (electromagnetic coil 17 which creates the magnetic field for operating rod 20 as discussed in col. 4, lines 39-57) in proximity to a tooth, wherein the step of removably securing comprises removably installing an oral appliance (container 11 and/or the orthodontic retainer discussed in col. 6, lines 62-66) including said energy source so that the energy source is in proximity to the tooth. Energy is imparted to the enamel of the tooth, which stimulates the trigeminal nerve. As stated in the applicant's specification (page 12, par. 1), a mechanical vibrator can be used to stimulate the trigeminal nerve due to the piezoelectric properties of the tooth (note also col. 1, lines 36-48 of the Mersky et al. reference). The examiner therefore considers it inherent that the application of mechanical vibration to the tooth such as disclosed by Mersky et al. will result in stimulation of the trigeminal nerve. After application of energy to the tooth enamel, the oral appliance and the energy source can be removed from the mouth (see col. 7, lines 29-31 and col. 8, lines 29-33) utilizing no more than manual force (again note col. 3, lines 25-29 and Figs. 4 and 5).

Regarding claim 15, the examiner considers energy source 17 to be in electromagnetic contact with the tooth enamel. Merriam-Webster's defines the word "contact" to include the act of getting in communication with. The electromagnetic field produced by the energy source of Mersky et al. is in electromagnetic communication

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with the tooth and therefore, in the broadest reasonable sense, is in contact with the tooth enamel. In any event, Mersky et al. teach in col. 8, lines 34-45 that the vibrations produced by the magnetostrictive rod 20 may be coupled to tissue in a variety of ways including *direct abutment* with bone tissue or a tooth. It is further arguable that even with the arrangement shown in Figs. 4 and 5 of Mersky et al. wherein the removable energy source is coupled to the tooth enamel through a fixed bracket 41, the energy source can be said to be in contact with the tooth enamel. Applicant's Fig. 1, for example, shows energy source 44 to be spaced from the tooth enamel by contact element 48, implying that "contact" does not necessarily mean "direct contact." The examiner considers bracket 41 to be no different than contact element 48 in this sense.

Response to Arguments

3. Applicant's arguments filed August 19, 2004 have been fully considered but they are not persuasive. The applicant's claim 14 does not preclude methods utilizing a fixed bracket in addition to a removable oral appliance. The oral appliance as defined above is clearly removable with no more than manual force. The applicant further gives no criticality to this feature.

Allowable Subject Matter

4. Claims 3-12, 18, 19 and 21-25 are allowed.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

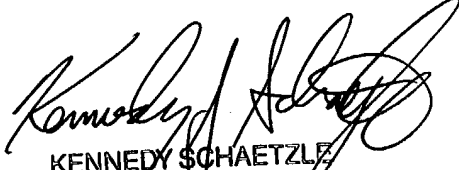
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached at 571 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KJS
November 17, 2004



KENNEDY SCHAETZLE
PRIMARY EXAMINER